

National Institute of Standards and Technology

The National Institute of Standards and Technology (NIST) is responsible for the measurement foundation that supports U.S. industry, government and scientific establishments. NIST promotes U.S. economic growth by working with industry to develop and apply technology, measurements, and standards. NIST carries out this mission through the following major programs.

The **NIST Laboratories** research program focuses on providing the measurements, standards, verified data, and test methods required for new technologies and competing in the global economy. The world-class scientific and technical staff works closely with private industry, academic researchers, and other government agencies.

The **Advanced Technology Program (ATP)** supports cost-shared awards to accelerate commercialization of high-risk, broadly enabling technologies that promise significant economic benefits for the Nation.

The **Manufacturing Extension Partnership (MEP) Program** assists small and medium-sized companies in assimilating new technologies and manufacturing practices through government-industry partnerships and extension services.

The **Baldrige National Quality Program (BNQP)** is a highly visible quality management program, focused on instilling the principles of continuous quality improvement in American businesses.

The **Critical Infrastructure Protection Grant Program (CIPGP)** was initiated in FY 2001 to fund private sector research to develop solutions to the widespread vulnerabilities in the Nation's information infrastructure.

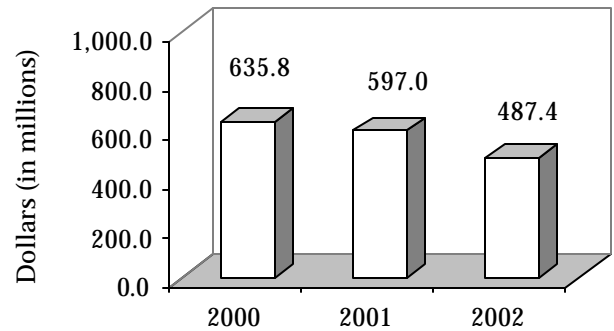
In addition, NIST has initiated a long-term program to upgrade its physical plant. Significant and sustained investment to upgrade existing facilities, which are 35 to 45 years old, is required to support NIST research in the 21st century. The FY 2002 budget includes funding to continue addressing the backlog of safety, capacity, maintenance and major repair projects at both the Gaithersburg, Maryland and Boulder, Colorado facilities. In accordance with the long-term program to upgrade NIST facilities, a construction contract was awarded in September 2000 and construction has begun on the Advanced Measurement Laboratory (AML). The AML will be a new state-of-the-art facility for the next generation of standards and measurements.

NIST Performance Measures

NIST supports Commerce's strategic goal to provide infrastructure for innovation to enhance American competitiveness.

A more detailed presentation of goals, objectives, and performance measures is found in the Department's Annual Performance Plan/Annual Performance Plan Report, and NIST's budget justification.

NIST Funding



Summary of Appropriations

Funding Levels

| | <u>2000</u> | <u>2001</u> | <u>2002</u> Estimate | Increase (Decrease) |
|--|-------------|-------------|-------------------------|------------------------|
| Appropriation | | | | |
| Scientific and Technical Research and Services | \$282,138 | \$311,929 | \$347,288 | \$35,359 |
| Industrial Technology Services | 246,780 | 250,285 | 119,266 | (131,019) |
| Construction of Research Facilities | 106,880 | 34,802 | 20,893 | (13,909) |
| Total Appropriation | 635,798 | 597,016 | 487,447 | (109,569) |
| Working Capital Fund | [250] | [282] | [282] | 0 |
| TOTAL BUDGET AUTHORITY | 635,798 | 597,016 | 487,447 | (109,569) |

PERMANENT POSITIONS

| | | | | |
|--|-------|-------|-------|-------|
| Scientific and Technical Research and Services | 1,972 | 2,007 | 2,168 | 161 |
| Industrial Technology Services | 376 | 373 | 219 | (154) |
| Construction of Research Facilities | 50 | 50 | 50 | 0 |
| Working Capital Fund | 706 | 695 | 695 | 0 |
| Total | 3,104 | 3,125 | 3,132 | 7 |

Highlights of Budget Changes

Appropriation: Scientific and Technical Research and Services

Summary of Requirements

| | <u>Detailed</u> | | <u>Summary</u> | |
|--|-----------------|---------------|-----------------|---------------|
| | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> |
| 2001 Enacted | | | 2,007 | \$311,929 |
| Adjustments to Base | | | | |
| Adjustments | | | | |
| Restoration of FY 2001 Deobligation Offset | | \$1,000 | | |
| Restoration of security base | | 482 | | |
| Less nonrecurring project | | (2,000) | | |
| ITS lab adjustment | 154 | 20,617 | | |
| Subtotal, adjustments | | | 154 | 20,099 |
| Other Changes | | | | |
| 2001 Pay raise | | 1,737 | | |
| 2002 Pay raise | | 4,597 | | |
| Payment to the Working Capital Fund | | 87 | | |
| Information Technology Pay Adjustment | | 288 | | |
| Information Technology Pay Adjustment (WCF) | | 3 | | |
| Full year cost in FY 2002 of positions financed for part year in FY 2001 | 0 | 0 | | |
| Within-grade step increases | | 1,615 | | |
| One more compensable day | | 663 | | |
| Civil Service Retirement System(CSRS) | | (287) | | |
| Federal Employees' Retirement System(FERS) | | 360 | | |
| Thrift Savings Plan | | 67 | | |
| Federal Insurance Contributions Act (FICA) -OASDI | | 202 | | |
| Health insurance | | 670 | | |
| Employees' Compensation Fund | | 11 | | |
| Travel | | | | |
| Per diem | | 297 | | |
| Mileage | | 7 | | |
| Rental payments to GSA | | 1 | | |
| Postage | | 25 | | |
| Printing and reproduction | | 12 | | |
| Other services: | | | | |
| Working Capital Fund | | 239 | | |
| Commerce Administrative Management System (CAMS) NIST | | 5,264 | | |
| CAMS NIST clients | 7 | 2,669 | | |
| NARA storage and maintenance | | (1) | | |
| Supplies and materials: | | | | |
| NIST journal subscriptions | | 169 | | |
| Reactor fuel | | 37 | | |
| General pricing level adjustment: | | | | |
| Transportation of things | | 19 | | |
| Rental payments to others | | 50 | | |

| | <u>Detailed</u> | | <u>Summary</u> | |
|--|-----------------|---------------|-----------------|---------------|
| | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> |
| Communications, utilities, & miscellaneous charges | | \$196 | | |
| Other services | | 614 | | |
| Supplies and materials | | 253 | | |
| Equipment | | 430 | | |
| | | | | |
| Subtotal, other cost changes | | | 7 | \$20,294 |
| Less Amount Absorbed | | | | (4,034) |
| TOTAL, ADJUSTMENTS TO BASE | | | 161 | 36,359 |
| 2002 Base | | | 2,168 | 348,288 |
| Program Changes | | | 0 | 0 |
| TOTAL REQUIREMENTS | | | 2,168 | 348,288 |
| Recoveries from Prior Year Obligations | | | | (1,000) |
| 2002 APPROPRIATION | | | 2,168 | 347,288 |

Comparison by Activity

| | 2001 Currently Avail | | 2002 Base | | 2002 Estimate | | Increase / Decrease | |
|--|----------------------|---------------|-----------------|---------------|-----------------|---------------|---------------------|---------------|
| | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> |
| DIRECT OBLIGATIONS | | | | | | | | |
| Electronics & electrical engineering | 263 | \$40,797 | 263 | \$41,214 | 263 | \$41,214 | 0 | \$0 |
| Manufacturing engineering | 138 | 20,023 | 138 | 20,389 | 138 | 20,389 | 0 | 0 |
| Chemical science & technology | 231 | 34,806 | 253 | 38,499 | 253 | 38,499 | 0 | 0 |
| Physics | 164 | 32,695 | 194 | 37,154 | 194 | 37,154 | 0 | 0 |
| Materials science & engineering | 345 | 56,397 | 390 | 62,696 | 390 | 62,696 | 0 | 0 |
| Building & fire research | 107 | 17,666 | 107 | 16,024 | 107 | 16,024 | 0 | 0 |
| Computer science & applied math. | 340 | 56,006 | 362 | 59,702 | 362 | 59,702 | 0 | 0 |
| Technology assistance | 116 | 17,742 | 116 | 17,857 | 116 | 17,857 | 0 | 0 |
| National quality program | 51 | 5,815 | 51 | 5,417 | 51 | 5,417 | 0 | 0 |
| Critical infrastructure protection gra | 2 | 4,989 | 2 | 4,992 | 2 | 4,992 | 0 | 0 |
| Research support activities | 250 | 31,995 | 292 | 44,062 | 292 | 44,062 | 0 | 0 |
| TOTAL DIRECT OBLIGATIONS | 2,007 | 318,931 | 2,168 | 348,006 | 2,168 | 348,006 | 0 | 0 |
| FINANCING | | | | | | | | |
| Unobligated balance, start of year | | (6,284) | | | | | | |
| Recovery of prior year obligations | | (1,000) | | (1,000) | | (1,000) | | 0 |
| Subtotal, financing | 0 | (7,284) | 0 | (1,000) | 0 | (1,000) | 0 | 0 |
| TOTAL BUDGET AUTHORITY | 2,007 | 311,647 | 2,168 | 347,006 | 2,168 | 347,006 | 0 | 0 |
| Transfers | | 282 | | 282 | | 282 | | 0 |
| TOTAL APPROPRIATION | 2,007 | 311,929 | 2,168 | 347,288 | 2,168 | 347,288 | 0 | 0 |

Appropriation: Industrial Technology Services

Summary of Requirements

| | <u>Detailed</u> | | <u>Summary</u> | |
|--|-----------------|---------------|-----------------|---------------|
| | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> |
| 2001 Enacted | | | 373 | \$250,285 |
| Adjustments to Base: | | | | |
| Adjustments | | | | |
| Restoration of FY 2001 deobligation offset | | \$3,800 | | |
| Unobligated balance start of year | | 67,143 | | |
| Unobligated balance end of year | | (3,997) | | |
| Restoration of security base | | 136 | | |
| ITS lab adjustment | (154) | (20,617) | | |
| Subtotal, adjustments | | | (154) | 46,465 |
| Other Changes | | | | |
| 2001 Pay raise | | 322 | | |
| 2002 Pay raise | | 868 | | |
| Payment to the Working Capital Fund | | 25 | | |
| Information Technology Pay Adjustment | | 51 | | |
| Information Technology Pay Adjustment (WCF) | | 1 | | |
| Within-grade step increases | | 310 | | |
| One more compensable day | | 123 | | |
| Civil Service Retirement System(CSRS) | | (55) | | |
| Federal Employees' Retirement System(FERS) | | 69 | | |
| Thrift Savings Plan | | 13 | | |
| Federal Insurance Contributions Act (FICA) -OASDI | | 38 | | |
| Health insurance | | 113 | | |
| Employees' Compensation Fund | | (2) | | |
| Travel | | | | |
| Per diem | | 61 | | |
| Mileage | | 2 | | |
| Postage | | 7 | | |
| Printing and reproduction | | 3 | | |
| Other services: | | | | |
| Working Capital Fund | | 33 | | |
| MEP center salaries | | 728 | | |
| General pricing level adjustment: | | | | |
| Transportation of things | | 2 | | |
| Rental payments to others | | 12 | | |
| Communications, utilities, & miscellaneous charges | | 41 | | |
| Other services | | 348 | | |
| Supplies and materials | | 35 | | |
| Equipment | | 53 | | |
| Subtotal, other cost changes | | | 0 | 3,201 |
| Less Amount Absorbed | | | | (845) |
| TOTAL, ADJUSTMENTS TO BASE | | | (154) | 48,821 |

| | <u>Detailed</u> | | <u>Summary</u> | |
|--|-----------------|---------------|-----------------|---------------|
| | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> |
| 2002 Base | | | 219 | \$299,106 |
| Program Changes | | | 0 | (112,894) |
| TOTAL REQUIREMENTS | | | 219 | 186,212 |
| Recoveries from Prior Year Obligations | | | 0 | (3,800) |
| Unobligated Balance start of year | | | 0 | (67,143) |
| Unobligated Balance end of year | | | 0 | 3,997 |
| 2002 APPROPRIATION | | | 219 | 119,266 |

Comparison by Activity

| | 2001 Currently Avail | | 2002 Base | | 2002 Estimate | | Increase / Decrease | |
|------------------------------------|----------------------|---------------|-----------------|---------------|-----------------|---------------|---------------------|---------------|
| | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> |
| DIRECT OBLIGATIONS | | | | | | | | |
| Advanced Technology Program | 268 | \$132,467 | 114 | \$192,832 | 114 | \$79,938 | 0 | (\$112,894) |
| Manufacturing Extension Partnershi | 105 | 108,483 | 105 | 106,274 | 105 | 106,274 | 0 | 0 |
| TOTAL DIRECT OBLIGATIONS | 373 | 240,950 | 219 | 299,106 | 219 | 186,212 | 0 | (112,894) |
| FINANCING | | | | | | | | |
| Unobligated balance, start of year | | (54,008) | | (67,143) | | (67,143) | | 0 |
| Recovery of prior obligations | | (3,800) | | (3,800) | | (3,800) | | 0 |
| Unobligated balance, end of year | | 67,143 | | 3,997 | | 3,997 | | 0 |
| Subtotal, financing | | 9,335 | | (66,946) | | (66,946) | | 0 |
| TOTAL BUDGET AUTHORITY | 373 | 250,285 | 219 | 232,160 | 219 | 119,266 | 0 | (112,894) |
| Transfer to Working Capital Fund | | 0 | | 0 | | 0 | | 0 |
| TOTAL APPROPRIATION | 373 | 250,285 | 219 | 232,160 | 219 | 119,266 | 0 | (112,894) |

Highlights of Program Changes

| | <u>Base</u> | | <u>Increase/Decrease</u> | |
|------------------------------------|----------------------------|---------------|----------------------------|---------------|
| | <u>Permanent Positions</u> | <u>Amount</u> | <u>Permanent Positions</u> | <u>Amount</u> |
| <u>Advanced Technology Program</u> | 114 | \$192,832 | 0 | -\$112,894 |

A decrease (0 pos.; -\$112,894) is requested. The Administration proposes to suspend the granting of new ATP awards in FY 2002. Resources available in FY 2002 would be used to pay for prior-year commitments and administrative costs while the Department evaluates the program to determine if ATP assistance to U.S. industry is still needed.

Appropriation: Construction of Research Facilities

Summary of Requirements

| | <u>Detailed</u> | | <u>Summary</u> | |
|---|-----------------|---------------|-----------------|---------------|
| | <u>Perm Pos</u> | <u>Amount</u> | <u>Perm Pos</u> | <u>Amount</u> |
| 2001 Enacted | | | 50 | \$34,802 |
| Adjustments to Base | | | | |
| Adjustments | | | | |
| Nonrecurring grants and cooperative agreements | | | | (14,000) |
| Other Changes | | | | |
| 2001 Pay raise | | \$24 | | |
| 2002 Pay raise | | 52 | | |
| Within-grade step increases | | 15 | | |
| One more compensable day | | 7 | | |
| Civil Service Retirement System(CSRS) | | (3) | | |
| Federal Employees' Retirement System(FERS) | | 4 | | |
| Thrift Savings Plan | | 1 | | |
| Federal Insurance Contributions Act (FICA) -OASDI | | 2 | | |
| Health insurance | | 7 | | |
| Travel: | | | | |
| Per diem | | 1 | | |
| General pricing level adjustment: | | | | |
| Other services | | 301 | | |
| Supplies and materials | | 18 | | |
| Equipment | | 12 | | |
| Subtotal, other cost changes | | | 0 | 441 |
| Less Amount Absorbed | | | | (350) |
| TOTAL, ADJUSTMENTS TO BASE | | | 0 | (13,909) |
| 2002 Base | | | 50 | 20,893 |
| Program Changes | | | 0 | 0 |
| 2002 APPROPRIATION | | | 50 | 20,893 |

Comparison by Activity

| | 2001 Currently Avail | | 2002 Base | | 2002 Estimate | | Increase / Decrease | |
|------------------------------------|----------------------|----------|-----------|----------|---------------|----------|---------------------|--------|
| | Perm Pos | Amount | Perm Pos | Amount | Perm Pos | Amount | Perm Pos | Amount |
| DIRECT OBLIGATIONS | | | | | | | | |
| Construction & Major Renovations | 50 | \$60,741 | 50 | \$20,893 | 50 | \$20,893 | 0 | \$0 |
| TOTAL DIRECT OBLIGATIONS | 50 | 60,741 | 50 | 20,893 | 50 | 20,893 | 0 | 0 |
| FINANCING | | | | | | | | |
| Unobligated balance, start of year | | (25,939) | | | | | | |
| Unobligated balance, end of year | | | | | | | | |
| Subtotal, financing | 0 | (25,939) | | | 0 | 0 | | |
| TOTAL BUDGET AUTHORITY | 50 | 34,802 | | | 50 | 20,893 | | |
| Transfer to Working Capital Fund | | | | | | | | |
| TOTAL, APPROPRIATION | 50 | 34,802 | | | 50 | 20,893 | | |

Appropriation: Working Capital Fund**Comparison by Activity**

| | 2001 Currently Avail | | 2002 Base | | 2002 Estimate | | Increase / Decrease | |
|------------------------------------|----------------------|-----------|-----------|---------|---------------|-----------|---------------------|--------|
| | Perm Pos | Amount | Perm Pos | Amount | Perm Pos | Amount | Perm Pos | Amount |
| DIRECT OBLIGATIONS | | | | | | | | |
| Direct Obligations | 0 | \$282 | 0 | \$282 | 0 | \$282 | 0 | \$0 |
| Reimbursable Obligations | 695 | 122,998 | 695 | 121,812 | 695 | 121,812 | 0 | 0 |
| WCF Investments | | 25,116 | | 22,018 | | 22,018 | 0 | 0 |
| TOTAL OBLIGATIONS | 695 | 148,396 | 695 | 144,112 | 695 | 144,112 | 0 | 0 |
| FINANCING | | | | | | | | |
| Unobligated balance, start of year | | (60,942) | | | | (54,391) | | |
| Unobligated balance, end of year | | 54,391 | | | | 53,144 | | |
| Offsetting collections from: | | | | | | | | |
| Federal funds | | (101,800) | | | | (101,800) | | |
| Non-Federal sources | | (39,763) | | | | (40,783) | | |
| Subtotal, financing | 0 | (148,114) | | | 0 | (143,830) | | |
| TOTAL BUDGET AUTHORITY | 695 | 282 | | | 695 | 282 | | |
| TRANSFERS | | | | | | | | |
| From STRS | | (282) | | | | (282) | | |
| From ITS | | 0 | | | | 0 | | |
| TOTAL, APPROPRIATION | 695 | 0 | | | 695 | 0 | | |